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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	09/607,678	
	Filing Date	June 30, 2000	
	First Named Inventor	Curtis A. Vock, et al.	
	Art Unit	2857	
	Examiner Name	M. Charioui	
Total Number of Pages in This Submission	35	Attorney Docket Number	388051

ENCLOSURES (check all that apply)

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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm	Lathrop & Gage, LC		
Signature			
Printed Name	Curtis A. Vock		
Date	May 18, 2005	Reg. No.	38,356

CERTIFICATE OF MAILING UNDER 37 C.F.R. 1.8

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Typed or printed name	Karen Jodzio-Head	Date	May 18, 2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



Practitioner's Docket No. 388051

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Curtis A. Vock, et al.

Application No.: 09/607,678

Group No.: 2857

Filed: June 30, 2000

Examiner: M. Charioui

For: EVENT AND SPORT PERFORMANCE METHODS AND SYSTEMS

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2. Supplemental Appeal Brief in triplicate (33 pages)
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Karen Jodzio-Head



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Vock et al.)	Date: January 3, 2005
)	
Serial No.: 09/607,678)	Examiner: M. Charioui
)	
Filed: June 30, 2000)	Group Art Unit: 2857
)	
)	Title: EVENT AND SPORT PERFORMANCE METHODS AND SYSTEMS

Certificate of Mailing Under 37 CFR 1.8

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Karen Jodzio-Head
Karen Jodzio-Head

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REQUEST FOR RESTATEMENT OF APPEAL
AND SUPPORTING APPEAL BRIEF, 37 C.F.R. §1.193(b)

Dear Sir:

In accord with 37 CFR §1.192 (rules which apparently still apply since this brief is filed before new appeal brief rules commenced and since Examiner refers to such rules), and responsive to the Official Action of April 7, 2005, Appellants hereby file their appeal brief in support of their supplemental Appeal in the above-identified matter. A notice of appeal was filed October 1, 2004. Three copies of this brief are enclosed, as required under 37 CFR §1.192(c).

- (1) **Real party in interest.** The real party of interest is PhatRat Technology, Inc., a Delaware corporation, with an office location of 8408 Brittany Place, Niwot, Colorado 80503; the full right, title, and interests in this application and accorded to PhatRat Technology are illustrated by way of fully-executed assignments executed on May 4, 2000 and recorded with the U.S. Patent and Trademark Office (at reel/frame 011142/0749).
- (2) **Related appeals and interferences.** There are no related appeals or interferences.
- (3) **Status of claims.** Claims 21-34 are pending in this application, with claim 21 being independent. Applicants appeal all claims 21-34. Claims 21, 27-31 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,148,271 ("Marinelli"). Claim 22 stands rejected as being unpatentable, under 35 U.S.C. §103(a), over Marinelli in view of U.S. Patent No. 6,292,213 ("Jones"). Claim 23-24 stand rejected as being unpatentable, under 35 U.S.C. §103(a), over Marinelli in view of U.S. Patent No. 5,023,727 ("Boyd"). Claim 25 stands rejected as being unpatentable, under 35 U.S.C. §103(a), over Marinelli in view of Boyd and U.S. Patent No. 5,993,335 ("Eden"). Claim 26 stands rejected as being unpatentable, under 35 U.S.C. §103(a), over Marinelli and U.S. Patent No. 6,430,453 ("Shea"). Claim 32-34 stand rejected as being unpatentable, under 35 U.S.C. §103(a), over Marinelli in view of U.S. Patent No. 6,163,021 ("Michelson").
- (4) **Status of amendments.** This application was filed on June 30, 2000, with claims 1-34. A first office action (including restriction requirement) was mailed August 14, 2002, to which a response was filed and entered January 14, 2003, including the cancellation of claims 1-20 and amendments of 21, 22-23 and 26. A final office action was mailed April 14, 2003, rejecting all claims; and then an RCE was filed September 8, 2003, amending claims 23-24, 26-28, 31. A non-final office action was mailed October 16, 2003 and a response to this office action was filed February 17, 2004, amending only the single independent claim 31. On March 17, 2004, the response of February 2004 was re-filed to include a recitation of all

claims, pursuant to a notice of non-compliance mailed March 8, 2004. A final rejection was mailed on June 1, 2004, to which the notice of appeal was filed October 1, 2004. An appeal brief was filed on January 3, 2005. The Examiner's reply was a new office action, mailed April 7, 2005, which prompted this supplemental appeal brief. All amendments are deemed entered as reflected in the set of claims included as an appendix hereto.

(5) Summary of the invention. The inventions of claims 21-34 relate to an event system including a base station that displays at least one performance metric. One or more mobile sensing units attach with participants in a sporting event; these units sense and then wirelessly transmit data indicative of the performance metric to at least one relay units, which in turn wirelessly relay the data to the base station. The system is for example useful in a snowboarding competition involving a jump over a snow mound. In this example, a sensing unit attaches to the snowboard of each participant in the competition. That sensing unit determines an "airtime" event (as an example of the performance metric) when the participant jumps at the snow mound; it then wirelessly transmits data of the performance metric. A relay unit is nearby to the snow mound and captures the wireless data from the sensing unit; it then relays that data to the base station (or relays the data to another relay unit (see claims 23, 24) if the base station is far away). The base station is located, for example, with the judges; it may include a display device (claim 27) so that judges can see, in near real time, how much airtime (in this example) each participant had for his or her jump. The base station can connect to a scoreboard (claim 26) so that spectators can also see the data. Other sporting metrics like airtime include, for example, spin, tilt, acceleration, distance, g-force (see claim 28).

(6) Issues.

- A. Whether claims 21, 27-31 are patentable under 35 U.S.C. § 102(b) due to Marinelli.
- B. Whether claim 22 is patentable under 35 U.S.C. §103 over Marinelli in view of Jones.

- C. Whether claims 23-24 are patentable under 35 U.S.C. §103 over Marinelli in view of Boyd.
- D. Whether claim 25 is patentable under 35 U.S.C. §103 over Marinelli in view of Boyd and Eden.
- E. Whether claim 26 is patentable under 35 U.S.C. §103 over Marinelli in view of Shea.
- F. Whether claims 32-34 are patentable under 35 U.S.C. §103 over Marinelli in view of Michelson.

(7) **Grouping of claims.** Group I consists of claims 21, 27-31. The claims of Group I do not stand or fall together. Group II consists of claim 22. Group III consists of claims 23-24. The claims of Group III do not stand or fall together. Group IV consists of claim 25. Group V consists of claim 26. Group VI consists of claims 32-34. The claims of Group VI do not stand or fall together.

8) **Argument (A).** *Whether Group I claims 21, 27-31 are patentable under 35 U.S.C. §102(b) Marinelli.*

To anticipate a claim, Marinelli must teach every element of the claim and "the identical invention must be shown in as complete detail as contained in the ... claim." *MPEP 2131* citing *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 2 USPQ2d 1051 (Fed. Cir. 1987) and *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913 (Fed. Cir. 1989). Marinelli does not teach every element of claims 21, 27-31. Amended claim 21 requires the following elements:

- (A) a base station for displaying at least one performance metric;
- (B) one or more mobile sensing units for attachment with participants in a competitive event and for transmitting wireless data representing at least one performance metric; and
- (C) at least one relay unit for receiving the wireless data representing at least one performance metric from the sensing units and for wirelessly transmitting said received data to the base station.

Marinelli discloses a speed, spin rate and curve measuring device. According to Marinelli, "the invention comprises two main parts: object unit 100 and monitor unit 108." Col.

4, lines 39-40. Importantly, the Examiner has cited monitor unit 108 two times relative to the elements of claim 21. That is, the Examiner correlates monitor unit 108 to a "base station" in element A of claim 21, then the object unit 100 to the sensing unit(s) of element B of claim 21, then, again, the monitor unit 108 as the relay unit of element C of claim 21. But, that is impossible. The relay unit of claim 21 wirelessly receives wireless data from the sensing units and then wirelessly communicates with the base station. The Examiner apparently is saying, then, that Marinelli's monitor unit 108 communicates with itself wirelessly.

This is not reasonable in any technical sense. Marinelli simply does not disclose the elements of claim 21 as required under 35 U.S.C. §102.

Note further that Marinelli's object unit attaches to objects, not persons as in claim 21. Marinelli also does not disclose multiple units used in concert during competitive events (or even a competitive event), also as in claim 21.

Claims 27-31 depend from claim 21 and benefit from like arguments. But these claims have additional reasons for patentability. For example, in claim 27, the base station has a display, wherein the base station displays the at least one performance metric on the display device. This claim too begins "further comprising" and yet the Examiner now again contends that the display device of Marinelli, col. 2, lines 53-65, is the same. However this again relates to the same monitor unit 10; Marinelli does not disclose a base station display (or even a base station) in the context of claim 21.

In claim 28, the performance metric is at least one selected from the group of rotation, spin, tilt, leaning, acceleration, speed, edge time, distance, drop distance, airtime and g-force. Marinelli does not disclose these features in the context of claim 21 (because it does not disclose, at least, the elements of claim 21).

In claim 29, the performance metric includes a rotation rate or total rotation. However, in the context of claim 21 this too is not disclosed by Marinelli.

In claim 30, the performance metric includes a rotation component. Again, Marinelli does not disclose these features in the context of claim 21 (because it does not disclose, at least, the elements of claim 21).

In claim 31, an accelerometer is disclosed. Marinelli has an accelerometer too – but it is unrelated to the context of claim 21. For example, Marinelli does not teach or suggest a relay unit and a base station, at least, as in claim 21.

Argument (B). *Whether claim 22, Group II, is patentable under 35 U.S.C. §103 over Marinelli in view of Jones.* We contend that the cited art does not render Group II claim 22 *prima facie* obvious. The following is a quotation of from the MPEP setting forth the three basic criteria that must be met to establish a *prima facie* case of obviousness:

To establish a *prima facie* case of obviousness, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

MPEP, §2142, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Claim 22 comprises at least one camera for capturing at least one image and sending data representing said at least one image to the base station. We have argued why Marinelli does not teach or suggest claim 21; claim 22 depends from claim 21 and, similarly, Marinelli does not disclose elements of claim 22. Jones discloses a micro video camera.

First, the combination of Jones and Marinelli still does not teach or suggest the elements of claim 22. Second, there is no reasonable chance of success in combining these two patents since the result is not, by a long shot, the invention of claim 22 (including the elements of claim 21). The Examiner's combination is exactly the kind of hindsight combination prohibited by U.S. Courts:

In making the assessment of differences, section 103 specifically requires consideration of the claimed invention "as a whole." Inventions typically are new combinations of existing principles or features. *Envtl. Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 698 (Fed. Cir. 1983) (noting that "virtually all [inventions] are combinations of old elements."). **The "as a whole" instruction in title 35 prevents evaluation of the invention part by part. Without this important requirement, an obviousness assessment might break an**

invention into its component parts (A + B + C), then find a prior art reference containing A, another containing B, and another containing C, and on that basis alone declare the invention obvious. This form of hindsight reasoning, using the invention as a roadmap to find its prior art components, would discount the value of combining various existing features or principles in a new way to achieve a new result - often the very definition of invention. Ruiz v. A.B. Chance Co., 69 USPQ2d 1686 (CA FC 2004) (emphasis added).

Argument (C). Whether claims 23-24 are patentable under 35 U.S.C. §103 over Marinelli in view of Boyd. We contend that the cited art does not render Group III claims 23-24 *prima facie* obvious.

First, again, Marinelli does not teach the elements of claim 21. For example, Marinelli does not disclose a relay unit and a base station as required in claim 21. The Examiner cites Boyd as disclosing two or more relay units. But, Boyd is not analogous art – by a long shot; it concerns a system for producing a substantially continuous composite signal. Moreover, the combination of Marinelli with Boyd still does not disclose the elements of claim 21. Not only is the hindsight combination of Boyd with Marinelli improper, the combination does not teach or suggest all the elements of claim 21.

Nor does the combination then teach the elements of claims 23-24. These two claims require a plurality of relay units (claim 23); in claim 24, the relay units are adjacent to an event area (e.g., where participants jump or create performance metrics like airtime). Marinelli and/or Boyd simply do not have any teaching of these features. Further, we must ask the Examiner to support the allegation that "it would be obvious to one having ordinary skill....to incorporate Boyd ... into Marinelli's invention because it would provide two relays...to the base station." We cannot disagree more and we are entitled to a better explanation (evidence) for this unreasonable allegation pursuant to MPEP §2144.

Argument (D). Whether claim 25 is patentable under 35 U.S.C. §103 over Marinelli in view of Boyd and Eden.. We contend that the cited art does not render Group IV claim 25 *prima facie* obvious.

Group IV claim 25 depends from claim 21 and benefit from like arguments. Specifically, again, Marinelli cannot teach or suggest the elements of claim 21. Like the other hindsight

combinations cited by the Examiner, Eden is seemingly cited merely because it discloses a game (a rollercoaster game). Eden is not reasonably analogous art. But more importantly the combination of Marinelli with Boyd and Eden simply does not disclose the elements of claim 21 and its dependent claim 25. Where for example is the "half pipe" disclosed in claim 25? It is nonexistent in the cited art.

We also again ask for evidence pursuant to MPEP §2144 that supports the Examiner's allegation, again, that the combination of the art of Marinelli, Boyd and Eden is somehow obvious to a skilled artisan. We cannot disagree more. The current rejection is blatant hindsight.

Argument (E). Whether claim 26 is patentable under 35 U.S.C. §103 over Marinelli in view of Shea. We contend that the cited art does not render Group V claim 26 prima facie obvious.

Group V claim 26 depends from claim 21 and benefit from like arguments. Specifically, again, Marinelli cannot teach or suggest the elements of claim 21. Like the other hindsight combinations cited by the Examiner, Shea is seemingly cited merely because it discloses a bowling game system using "scores". Shea is not reasonably analogous art. But more importantly the combination of Marinelli with Shea simply does not disclose the elements of claim 21 and its dependent claim 26 (which requires a "scoreboard").

We also again ask for evidence pursuant to MPEP §2144 that supports the Examiner's allegation, again, that the combination of the art of Marinelli and Shea is somehow obvious to a skilled artisan. We cannot disagree more. The current rejection is, again, mere hindsight and impermissible combining under 35 U.S.C. §103. See, again, *Ruiz* decision.

Argument (F). Whether claims 32-34 are patentable under 35 U.S.C. §103 over Marinelli in view of Michelson. We contend that the cited art does not render Group VI claims 32-34 prima facie obvious.

First, again, Marinelli does not teach the elements of claim 21. For example, Marinelli does not disclose a relay unit and a base station as required in claim 21. The Examiner cites Michelson as disclosing magnetic spin sensors. But, Michelson is not analogous art; it concerns a navigation system for spinning projectiles. Moreover, the combination of Marinelli with

Michelson still does not disclose the elements of claim 21. Not only is the hindsight combination of Marinelli with Michelson improper, the combination does not teach or suggest all the elements of claim 21.

Nor does the combination then teach the elements of claims 32-34. In claim 32, for example, the sensing unit includes at least one magnetic field sensing device; it is true that Mickelson discloses a magnetic spin sensor, but Mickelson and Marinelli still do not teach the elements of claim 32, including elements of claim 21. The combination also fails to disclose:

- the sensing unit further includes one or more pitch and roll sensors (claim 33).
- the sensing unit includes one or more magnetic field sensing devices indicating 3 axes of rotation (claim 34).

(9) **Appendix.** Appellants enclose a copy of the claims involved in this appeal as an appendix hereto.

Conclusions

Accordingly, Applicants respectfully submit that the claims Groups I-VI patentably distinguish over the art of record. No further fees are deemed due in connection with this matter. However, the Commissioner is hereby authorized to charge any fees which may be due in this matter from Deposit Account Number 12-0600.

Respectfully submitted,

Lathrop & Gage L.C.

By: 

May 18, 2005

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APPENDIX TO APPEAL BRIEF

21. (Previously amended) An event system comprising:
a base station for displaying at least one performance metric;
one or more mobile sensing units for attachment with participants in a competitive event
and for transmitting wireless data representing at least one performance metric;
and
at least one relay unit for receiving the wireless data representing the at least one
performance metric from the sensing units and for wirelessly transmitting said
received data to the base station.
22. (Previously amended) The system of claim 21, further comprising at least one
camera for capturing at least one image and sending data representing said at least one image to
the base station.
23. (Previously amended) The system of claim 21, wherein the at least one relay unit
includes at least two relay units.
24. (Previously amended) The system of claim 23, wherein the at least two relay units
are located proximate to an event area.
25. (Original) The system of claim 24, wherein the event area is a half pipe event
area.
26. (Previously amended) The system of claim 21, further comprising a scoreboard,
and wherein the base station displays the at least one performance metric on the scoreboard.

27. (Previously amended) The system of claim 21, further comprising a display device electrically coupled to the base station, and wherein the base station displays the at least one performance metric on the display device.

28. (Previously amended) The system of claim 21, wherein the performance metric is at least one selected from the group of rotation, spin, tilt, leaning, acceleration, speed, edge time, distance, drop distance, airtime and g-force.

29. (Original) The system of claim 21, wherein the performance metric includes a rotation rate or total rotation.

30. (Original) The system of claim 21, wherein the performance metric includes a rotation component.

31. (Original) The system of claim 30, wherein the sensing unit includes an accelerometer.

32. (Original) The system of claim 30, wherein the sensing unit includes at least one magnetic field sensing device.

33. (Original) The system of claim 32, wherein the sensing unit further includes one or more pitch and roll sensors.

34. (Previously amended) The system of claim 30, wherein the sensing unit includes one or more magnetic field sensing devices indicating 3 axes of rotation.



PATENT
Attorney Docket: 388051

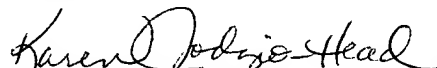
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Karen Jodzio-Head

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**REQUEST FOR RESTATEMENT OF APPEAL
AND SUPPORTING APPEAL BRIEF, 37 C.F.R. §1.193(b)**

Dear Sir:

In accord with 37 CFR §1.192 (rules which apparently still apply since this brief is filed before new appeal brief rules commenced and since Examiner refers to such rules), and responsive to the Official Action of April 7, 2005, Appellants hereby file their appeal brief in support of their supplemental Appeal in the above-identified matter. A notice of appeal was filed October 1, 2004. Three copies of this brief are enclosed, as required under 37 CFR §1.192(c).

- (1) **Real party in interest.** The real party of interest is PhatRat Technology, Inc., a Delaware corporation, with an office location of 8408 Brittany Place, Niwot, Colorado 80503; the full right, title, and interests in this application and accorded to PhatRat Technology are illustrated by way of fully-executed assignments executed on May 4, 2000 and recorded with the U.S. Patent and Trademark Office (at reel/frame 011142/0749).
- (2) **Related appeals and interferences.** There are no related appeals or interferences.
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- (4) **Status of amendments.** This application was filed on June 30, 2000, with claims 1-34. A first office action (including restriction requirement) was mailed August 14, 2002, to which a response was filed and entered January 14, 2003, including the cancellation of claims 1-20 and amendments of 21, 22-23 and 26. A final office action was mailed April 14, 2003, rejecting all claims; and then an RCE was filed September 8, 2003, amending claims 23-24, 26-28, 31. A non-final office action was mailed October 16, 2003 and a response to this office action was filed February 17, 2004, amending only the single independent claim 31. On March 17, 2004, the response of February 2004 was re-filed to include a recitation of all

claims, pursuant to a notice of non-compliance mailed March 8, 2004. A final rejection was mailed on June 1, 2004, to which the notice of appeal was filed October 1, 2004. An appeal brief was filed on January 3, 2005. The Examiner's reply was a new office action, mailed April 7, 2005, which prompted this supplemental appeal brief. All amendments are deemed entered as reflected in the set of claims included as an appendix hereto.

(5) Summary of the invention. The inventions of claims 21-34 relate to an event system including a base station that displays at least one performance metric. One or more mobile sensing units attach with participants in a sporting event; these units sense and then wirelessly transmit data indicative of the performance metric to at least one relay units, which in turn wirelessly relay the data to the base station. The system is for example useful in a snowboarding competition involving a jump over a snow mound. In this example, a sensing unit attaches to the snowboard of each participant in the competition. That sensing unit determines an "airtime" event (as an example of the performance metric) when the participant jumps at the snow mound; it then wirelessly transmits data of the performance metric. A relay unit is nearby to the snow mound and captures the wireless data from the sensing unit; it then relays that data to the base station (or relays the data to another relay unit (see claims 23, 24) if the base station is far away). The base station is located, for example, with the judges; it may include a display device (claim 27) so that judges can see, in near real time, how much airtime (in this example) each participant had for his or her jump. The base station can connect to a scoreboard (claim 26) so that spectators can also see the data. Other sporting metrics like airtime include, for example, spin, tilt, acceleration, distance, g-force (see claim 28).

(6) Issues.

- A. Whether claims 21, 27-31 are patentable under 35 U.S.C. § 102(b) due to Marinelli.
- B. Whether claim 22 is patentable under 35 U.S.C. §103 over Marinelli in view of Jones.

- C. Whether claims 23-24 are patentable under 35 U.S.C. §103 over Marinelli in view of Boyd.
- D. Whether claim 25 is patentable under 35 U.S.C. §103 over Marinelli in view of Boyd and Eden.
- E. Whether claim 26 is patentable under 35 U.S.C. §103 over Marinelli in view of Shea.
- F. Whether claims 32-34 are patentable under 35 U.S.C. §103 over Marinelli in view of Michelson.

(7) **Grouping of claims.** Group I consists of claims 21, 27-31. The claims of Group I do not stand or fall together. Group II consists of claim 22. Group III consists of claims 23-24. The claims of Group III do not stand or fall together. Group IV consists of claim 25. Group V consists of claim 26. Group VI consists of claims 32-34. The claims of Group VI do not stand or fall together.

8) **Argument (A).** *Whether Group I claims 21, 27-31 are patentable under 35 U.S.C. §102(b) Marinelli.*

To anticipate a claim, Marinelli must teach every element of the claim and “the identical invention must be shown in as complete detail as contained in the ... claim.” *MPEP 2131* citing *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 2 USPQ2d 1051 (Fed. Cir. 1987) and *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913 (Fed. Cir. 1989). Marinelli does not teach every element of claims 21, 27-31. Amended claim 21 requires the following elements:

- (A) a base station for displaying at least one performance metric;
- (B) one or more mobile sensing units for attachment with participants in a competitive event and for transmitting wireless data representing at least one performance metric; and
- (C) at least one relay unit for receiving the wireless data representing at least one performance metric from the sensing units and for wirelessly transmitting said received data to the base station.

Marinelli discloses a speed, spin rate and curve measuring device. According to Marinelli, “the invention comprises two main parts: object unit 100 and monitor unit 108.” Col.

4, lines 39-40. Importantly, the Examiner has cited monitor unit 108 two times relative to the elements of claim 21. That is, the Examiner correlates monitor unit 108 to a "base station" in element A of claim 21, then the object unit 100 to the sensing unit(s) of element B of claim 21, then, again, the monitor unit 108 as the relay unit of element C of claim 21. But, that is impossible. The relay unit of claim 21 wirelessly receives wireless data from the sensing units and then wirelessly communicates with the base station. The Examiner apparently is saying, then, that Marinelli's monitor unit 108 communicates with itself wirelessly.

This is not reasonable in any technical sense. Marinelli simply does not disclose the elements of claim 21 as required under 35 U.S.C. §102.

Note further that Marinelli's object unit attaches to objects, not persons as in claim 21. Marinelli also does not disclose multiple units used in concert during competitive events (or even a competitive event), also as in claim 21.

Claims 27-31 depend from claim 21 and benefit from like arguments. But these claims have additional reasons for patentability. For example, in claim 27, the base station has a display, wherein the base station displays the at least one performance metric on the display device. This claim too begins "further comprising" and yet the Examiner now again contends that the display device of Marinelli, col. 2, lines 53-65, is the same. However this again relates to the same monitor unit 10; Marinelli does not disclose a base station display (or even a base station) in the context of claim 21.

In claim 28, the performance metric is at least one selected from the group of rotation, spin, tilt, leaning, acceleration, speed, edge time, distance, drop distance, airtime and g-force. Marinelli does not disclose these features in the context of claim 21 (because it does not disclose, at least, the elements of claim 21).

In claim 29, the performance metric includes a rotation rate or total rotation. However, in the context of claim 21 this too is not disclosed by Marinelli.

In claim 30, the performance metric includes a rotation component. Again, Marinelli does not disclose these features in the context of claim 21 (because it does not disclose, at least, the elements of claim 21).

In claim 31, an accelerometer is disclosed. Marinelli has an accelerometer too – but it is unrelated to the context of claim 21. For example, Marinelli does not teach or suggest a relay unit and a base station, at least, as in claim 21.

Argument (B). *Whether claim 22, Group II, is patentable under 35 U.S.C. §103 over Marinelli in view of Jones.* We contend that the cited art does not render Group II claim 22 *prima facie* obvious. The following is a quotation of from the MPEP setting forth the three basic criteria that must be met to establish a *prima facie* case of obviousness:

To establish a *prima facie* case of obviousness, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

MPEP, §2142, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Claim 22 comprises at least one camera for capturing at least one image and sending data representing said at least one image to the base station. We have argued why Marinelli does not teach or suggest claim 21; claim 22 depends from claim 21 and, similarly, Marinelli does not disclose elements of claim 22. Jones discloses a micro video camera.

First, the combination of Jones and Marinelli still does not teach or suggest the elements of claim 22. Second, there is no reasonable chance of success in combining these two patents since the result is not, by a long shot, the invention of claim 22 (including the elements of claim 21). The Examiner's combination is exactly the kind of hindsight combination prohibited by U.S. Courts:

In making the assessment of differences, section 103 specifically requires consideration of the claimed invention "as a whole." Inventions typically are new combinations of existing principles or features. *Envtl. Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 698 (Fed. Cir. 1983) (noting that "virtually all [inventions] are combinations of old elements."). **The "as a whole" instruction in title 35 prevents evaluation of the invention part by part. Without this important requirement, an obviousness assessment might break an**

invention into its component parts (A + B + C), then find a prior art reference containing A, another containing B, and another containing C, and on that basis alone declare the invention obvious. This form of hindsight reasoning, using the invention as a roadmap to find its prior art components, would discount the value of combining various existing features or principles in a new way to achieve a new result - often the very definition of invention. Ruiz v. A.B. Chance Co., 69 USPQ2d 1686 (CA FC 2004) (emphasis added).

Argument (C). Whether claims 23-24 are patentable under 35 U.S.C. §103 over Marinelli in view of Boyd. We contend that the cited art does not render Group III claims 23-24 *prima facie* obvious.

First, again, Marinelli does not teach the elements of claim 21. For example, Marinelli does not disclose a relay unit and a base station as required in claim 21. The Examiner cites Boyd as disclosing two or more relay units. But, Boyd is not analogous art – by a long shot; it concerns a system for producing a substantially continuous composite signal. Moreover, the combination of Marinelli with Boyd still does not disclose the elements of claim 21. Not only is the hindsight combination of Boyd with Marinelli improper, the combination does not teach or suggest all the elements of claim 21.

Nor does the combination then teach the elements of claims 23-24. These two claims require a plurality of relay units (claim 23); in claim 24, the relay units are adjacent to an event area (e.g., where participants jump or create performance metrics like airtime). Marinelli and/or Boyd simply do not have any teaching of these features. Further, we must ask the Examiner to support the allegation that "it would be obvious to one having ordinary skill....to incorporate Boyd ... into Marinelli's invention because it would provide two relays...to the base station." We cannot disagree more and we are entitled to a better explanation (evidence) for this unreasonable allegation pursuant to MPEP §2144.

Argument (D). Whether claim 25 is patentable under 35 U.S.C. §103 over Marinelli in view of Boyd and Eden.. We contend that the cited art does not render Group IV claim 25 *prima facie* obvious.

Group IV claim 25 depends from claim 21 and benefit from like arguments. Specifically, again, Marinelli cannot teach or suggest the elements of claim 21. Like the other hindsight

combinations cited by the Examiner, Eden is seemingly cited merely because it discloses a game (a rollercross game). Eden is not reasonably analogous art. But more importantly the combination of Marinelli with Boyd and Eden simply does not disclose the elements of claim 21 and its dependent claim 25. Where for example is the "half pipe" disclosed in claim 25? It is nonexistent in the cited art.

We also again ask for evidence pursuant to MPEP §2144 that supports the Examiner's allegation, again, that the combination of the art of Marinelli, Boyd and Eden is somehow obvious to a skilled artisan. We cannot disagree more. The current rejection is blatant hindsight.

Argument (E). Whether claim 26 is patentable under 35 U.S.C. §103 over Marinelli in view of Shea. We contend that the cited art does not render Group V claim 26 *prima facie* obvious.

Group V claim 26 depends from claim 21 and benefit from like arguments. Specifically, again, Marinelli cannot teach or suggest the elements of claim 21. Like the other hindsight combinations cited by the Examiner, Shea is seemingly cited merely because it discloses a bowling game system using "scores". Shea is not reasonably analogous art. But more importantly the combination of Marinelli with Shea simply does not disclose the elements of claim 21 and its dependent claim 26 (which requires a "scoreboard").

We also again ask for evidence pursuant to MPEP §2144 that supports the Examiner's allegation, again, that the combination of the art of Marinelli and Shea is somehow obvious to a skilled artisan. We cannot disagree more. The current rejection is, again, mere hindsight and impermissible combining under 35 U.S.C. §103. See, again, *Ruiz* decision.

Argument (F). Whether claims 32-34 are patentable under 35 U.S.C. §103 over Marinelli in view of Michelson. We contend that the cited art does not render Group VI claims 32-34 *prima facie* obvious.

First, again, Marinelli does not teach the elements of claim 21. For example, Marinelli does not disclose a relay unit and a base station as required in claim 21. The Examiner cites Michelson as disclosing magnetic spin sensors. But, Michelson is not analogous art; it concerns a navigation system for spinning projectiles. Moreover, the combination of Marinelli with

Michelson still does not disclose the elements of claim 21. Not only is the hindsight combination of Marinelli with Michelson improper, the combination does not teach or suggest all the elements of claim 21.

Nor does the combination then teach the elements of claims 32-34. In claim 32, for example, the sensing unit includes at least one magnetic field sensing device; it is true that Mickelson discloses a magnetic spin sensor, but Mickelson and Marinelli still do not teach the elements of claim 32, including elements of claim 21. The combination also fails to disclose:

- the sensing unit further includes one or more pitch and roll sensors (claim 33).
- the sensing unit includes one or more magnetic field sensing devices indicating 3 axes of rotation (claim 34).

(9) Appendix. Appellants enclose a copy of the claims involved in this appeal as an appendix hereto.

Conclusions

Accordingly, Applicants respectfully submit that the claims Groups I-VI patentably distinguish over the art of record. No further fees are deemed due in connection with this matter. However, the Commissioner is hereby authorized to charge any fees which may be due in this matter from Deposit Account Number 12-0600.

Respectfully submitted,

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APPENDIX TO APPEAL BRIEF

21. (Previously amended) An event system comprising:
a base station for displaying at least one performance metric;
one or more mobile sensing units for attachment with participants in a competitive event
and for transmitting wireless data representing at least one performance metric;
and
at least one relay unit for receiving the wireless data representing the at least one
performance metric from the sensing units and for wirelessly transmitting said
received data to the base station.
22. (Previously amended) The system of claim 21, further comprising at least one
camera for capturing at least one image and sending data representing said at least one image to
the base station.
23. (Previously amended) The system of claim 21, wherein the at least one relay unit
includes at least two relay units.
24. (Previously amended) The system of claim 23, wherein the at least two relay units
are located proximate to an event area.
25. (Original) The system of claim 24, wherein the event area is a half pipe event
area.
26. (Previously amended) The system of claim 21, further comprising a scoreboard,
and wherein the base station displays the at least one performance metric on the scoreboard.

27. (Previously amended) The system of claim 21, further comprising a display device electrically coupled to the base station, and wherein the base station displays the at least one performance metric on the display device.

28. (Previously amended) The system of claim 21, wherein the performance metric is at least one selected from the group of rotation, spin, tilt, leaning, acceleration, speed, edge time, distance, drop distance, airtime and g-force.

29. (Original) The system of claim 21, wherein the performance metric includes a rotation rate or total rotation.

30. (Original) The system of claim 21, wherein the performance metric includes a rotation component.

31. (Original) The system of claim 30, wherein the sensing unit includes an accelerometer.

32. (Original) The system of claim 30, wherein the sensing unit includes at least one magnetic field sensing device.

33. (Original) The system of claim 32, wherein the sensing unit further includes one or more pitch and roll sensors.

34. (Previously amended) The system of claim 30, wherein the sensing unit includes one or more magnetic field sensing devices indicating 3 axes of rotation.